AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) An image data coding device, comprising:

a data converting unit for converting color data that is contained in image data, into converted color data that corresponds to a difference from a reference color; and

a coding unit for performing entropy coding on the converted color data in which the color data has been converted by the data converting unit.

2. (Previously Presented) The image data coding device of Claim 1,

wherein the converted color data is made up of color data and brightness data, and

the image data coding device further comprises

a color space converting unit for converting original image data that is made up of a plurality of color components, into the converted color data.

3. (Original) The image data coding device of Claim 2,

wherein the original image data is made up of the color components of red, green, and blue, and

the image data is expressed by coordinate values in the L*a*b* color system.

4. (Original) The image data coding device of Claim 1,

wherein the data converting unit includes a determining unit for determining the reference color using the color data that has yet to be converted.

5. (Original) The image data coding device of Claim 1, wherein the reference color is an achromatic color.

6. (Original) The image data coding device of Claim 1,

wherein the coding unit

(a) generates bit planes for the converted color data that has been converted by the data converting unit, by dividing bits of pixels showing the converted color data in such a manner that each bit plane is composed of values of bits at a different bit position, and

(b) performs the entropy coding on the converted color data in units of the generated bit planes.

7. (Original) The image data coding device of Claim 1,

wherein the coding unit

(a) generates a plane for the converted color data that has been converted by the data converting unit, by arranging values of bits of pixels showing the converted color data on a two-dimensional plane, and

(b) performs the entropy coding on the converted color data in a form of the generated plane.

8. (Previously Presented) An image forming apparatus comprising:

an image data coding device that includes

(a) a data converting unit for converting color data that is contained in image data, into converted color data that corresponds to a difference from a reference color, and

(b) a coding unit for performing entropy coding on the converted color data in which the color data has been converted by the data converting unit; and

a memory for storing coded data obtained by the coding unit performing the entropy coding.

9. (Previously Presented) An image data coding method, comprising:

a data converting step for converting color data that is contained in image data, into converted color data that corresponds to a difference from a reference color; and

a coding step for performing entropy coding on the converted color data in which the color data has been converted by the data converting unit.

10. (Original) The image data coding method of Claim 9, further comprising a color space converting step for converting original image data that is made up of a plurality of color components, into the image data.

11. (Original) The image data coding method of Claim 9, further comprising

a determining step for determining the reference color using the color data that has yet to be converted.

12. (Original) The image data coding method of Claim 9, wherein the reference color is an achromatic color.

13. (Previously Presented) A storage medium storing a program that can be operated on a processor to realize following functions of:

a data converting unit for converting color data that is contained in image data, into converted color data that corresponds to a difference from a reference color; and

a coding unit for performing entropy coding on the converted color data in which the color data has been converted by the data converting unit.

14. (Canceled)

15. (Original) An image data coding device, comprising:

image data input means for receiving input of first-type color image data;

image data converting means for converting the input first-type color image data into second-type color image data that contains brightness data and color data, where a difference between a condition of the color data and a condition of data for a reference color corresponds to a difference between a color expressed by the color data and the reference color, the condition of the data for the reference color being set at maximum or minimum at least in a predetermined range including the reference color; and

coding means for performing entropy coding on the second-type color image data.

16. (Previously Presented) An image data coding device, comprising:

an image data input device for receiving input of first-type color image data;

an image data converting device for converting the input first-type color image data into second-type color image data that contains brightness data and color data,

where a difference between a condition of the color data and a condition of data for a reference color corresponds to a difference between a color expressed by the color data and reference color, the condition of the data for the reference color being set at maximum or minimum at least in a predetermined range including the reference color; and

a coding device for performing entropy coding on the second-type color image data.

17. (New) The image data coding device of Claim 1, wherein the data converting unit converts the color data based on a difference between a single reference color.

18. (New) The image data coding device of Claim 17, wherein the reference color is an achromatic color.

19. (New) The image data coding method of claim 9, wherein the data converting step converts the color data based on a difference between a single reference color.

20. (New) The image data coding method of Claim 19, wherein the reference color is an achromatic color.